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# Measuring Program Progress

## Work Group Update



January 7-8, 2003

# Purpose

- Summarize work group activities conducted since September 2002
- Propose future activities, tasks, deliverables, and schedules
- Get feedback from the Subcommittee, and revise future activities based on input

## **MPP Work Group: Major Tasks**

- Comments on EPA's progress measure White Papers ("consultative comments")
  - Population risk reduction indicator (done)
  - Ecological risk reduction indicator
  - Land use performance indicator
- Develop/propose additional progress measures for Superfund

# **MPP Work Group Presentation and Discussion**

- Comments on the Population Risk Reduction White Paper (David Cooper/EPA)
- Work group activities since September meeting
- Performance measures developed by the work group
- Subcommittee discussion

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## **Population Risk Reduction Measure: Proposed Methodology**

- Primary components of proposed methodology
- Summary of comments from MPP work group
- Next steps for this measure
- Other new measures under development

# Population Risk Reduction Measure: Primary Components

- Measure the population benefiting from Superfund actions.
- Two components:
  - Identification of populations that may be exposed at Superfund Sites via relevant pathways based on proximity
  - Identification of risk reduction category achieved by response actions
- Risk Reduction Categories:
  - No risk reduction (no action yet taken)
  - Partial risk reduction (some action taken)
  - Current Risks controlled (human exposures controlled)
  - Current and

# **Population Risk Reduction Measure: Work Group Comments**

- Indicator must be comprehensible at site level and national level
- Population aspect is misleading
- Accurate measure of populations beyond the scope of what can be accomplished
- Progress measure is on target, and could be enhanced with additional detail

# Other New Measures Under Development

- Ecological Risk Indicator: to work group by end of the month
- Land Reuse: to work group this spring
- Implementation: first time reporting in FY2004



# **MPP Work Group Activities- September 02- January 03**

- Reviewed/ commented on Population Risk Reduction indicator
- Developed work group work plan
- Reduced and consolidated initial list of measures
- Work group met on November 21

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# MPP Work Group Work Plan

- “Screening criteria” for selecting progress measures for development:
  - Can the concept be quantified (measured)?
  - Does it align with a desired program outcome?
  - Are measurement data available?
  - Is the effort to score worth the potential benefit?
  - Is it duplicative?
- Develop a program “report card” that combines several measures

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## **MPP Work Group Activities- September 02- January 03**

- Drafted introduction to performance measure paper
- Drafted progress measures:
  - Alternate framework for a human health protection
  - Remedy failure effectiveness measure
  - Institutional coordination measure

# • • • **Introduction to Performance Measures - Key Points**

- Describes various kinds of measures
- National vs site-specific performance measures
- Program progress vs program merit
- MPP work group focus is on program progress
- Other important performance areas to consider:
  - Budget transparency
  - General program tracking
  - Tracking performance of institutional controls

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# Introduction to Performance Measures

- Topics of discussion and debate
  - Cost-benefit measures
  - Measures related to protection “mandate”
  - Performance of institutional controls

# Framework for Human Health Protection Measure

- Framework principles:
  - A population exposed to contaminants is at greater risk than a population that is not exposed
  - More contamination, or more toxic contaminants at a site represent an increased residual risk to the population
  - Stronger exposure controls afford greater protection than weak controls

# Framework for Human Health Protection Measure

- Framework principles:
  - Measurement framework should reflect progress in public health protection through actions that precede construction complete
  - Measurement has to work at the national and site specific levels

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# Framework for Human Health Protection Measure

- Components:
  - Control of exposure
  - Residual contamination
  - Effectiveness and reliability of controls



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# Framework for Human Health Protection Measure

Component	Scoring
<i>Phase 1</i>	
Control of exposure	Y/N
<i>Phase 2</i>	
Residual contamination	5 category scale from 2- 10
Effectiveness and reliability of controls	10 category scale from 5 - 50

# Framework for Human Health Protection Measure

- Two phases of scoring:
  - Phase 1: Based solely on “Control of Exposure” (Y/N)
  - Phase 2:
    - Applied only to sites that score “Yes” in Phase 1
    - Calculate a “*Human Health Protection Indicator*”
$$HHPI = (Residual\ Contamination) * (Effectiveness\ and\ Reliability\ of\ Controls)$$

# Framework for Human Health Protection Measure

- Program scoring and evaluation
  - Phase 1:
    - Number of sites with exposure controlled
    - Program ratio- *Exposure controlled : Not controlled*
  - Phase 2:
    - Initial site evaluation score normalized to “baseline” score of 1.0
    - Site-specific progress in human health protection reflected in changes in baseline
    - Program evaluation/progress reflected in change in the total program score:  
 $(\Sigma \text{ Site-specific scores})$

# Framework for Human Health Protection Measure

- Topics of discussion and debate:
  - Need for an ecological risk indicator
  - Potential for misinterpretation that a site is “clean”
  - Weighting toward use of interim measures
  - Link measure to the pace of cleanup
  - Simplicity of Phase 1 score (Y/N) is deceptive
  - Difficulty in quantifying mass of hazardous substances
  - What’s the appropriate/most important indicator of “extent”

# Framework for Human Health Protection Measure

- Topics of discussion and debate:
  - Insufficient weighting of highly contaminated materials
  - Application of the “toxicity” subcomponent
  - Subjectivity of the “Effectiveness and reliability of controls (E&RC)” component
  - Proposed number of E&RC categories
  - Potential to score only selected sites to make the program look good
  - Application at the site, OU, or pathway level

# Remedy Effectiveness Measure

- Diverging opinions on what constitutes “remedy failure” and how to measure it:
  - Remedies aren’t allowed to fail:
    - Problems with remedy effectiveness trigger additional obligations
    - Once triggered, “contingency obligations” require corrective responses
  - The program record doesn’t conform to the “no failures” model, and failures can be measured

# Remedy Effectiveness Measure

- Options for tracking (measuring) remedy effectiveness/ failure:
  - Significant changes in response actions
    - Would scoring “changes” be a disincentive for improving remedies?
  - Results of Five-Year Reviews (track/score results of “protectiveness determination”)

# Remedy Effectiveness Measure

- Options for tracking (measuring) remedy effectiveness/ failure:
  - Track/score sites where ROD is reopened
    - Need to distinguish reasons for reopening
  - Track/score sites that are re-listed
  - Track/score effectiveness/failure of institutional controls



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# Institutional Coordination Measure

- Three measures:
  - State coordination
  - Tribal consultation
  - Community measure
- Each measure has narrative and specific measurable components

# Institutional Coordination Measure-States

- Governor's concurrence
- ROD concurrence
- Agency-lead agreements
- State NRD trustee communication process
- Agreed approach to cleaning up sites outside of NPL
- MOU for State's VCP
- Routine State-EPA Region meetings
- Performance partnership agreements

# Institutional Coordination Measure- Tribal Consultation

- Tribal concurrence on listing (how many sites have it/ don't have it)
- Concurrence on lead agency designation
- MOU with EPA
- Proximity of tribal lands to NPL sites
- Consultation meetings between Tribe and EPA
- Existence of Tribal Environmental Agreements (TEA)
- Inclusion of Superfund in TEA
- Technical/ financial environmental assistance to the Tribe (several measures)

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## **Institutional Coordination Measure- Tribal Consultation**

- Tribal NRD trustee coordination
- Formal agreements between Tribe and State
- Tribal concurrence with ROD

# Institutional Coordination Measure-Community

- Underlying premise:
  - Right to participate in policy process is equal across all groups, including individual community members
  - Develop firm rules for communication and decision making

# Community Coordination: Objective Measures

- Presence of CAG
- Application for/granting of TAG
- Public notices for meetings
- Public comments on key documents
- Written responses to public comments
- Formal outreach to seek community input
- Evaluation of applicability of environmental justice guidelines

# Community Coordination: Consultation and Outreach Measures

- Local medical professionals
- Natural scientists with local knowledge
- Social scientists
- Indigenous and environmental justice groups
- Social service professionals
- Local media
- CAG
- Community acceptance of proposed remedy
- Reports/deliverables to the community

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# Measuring Program Progress

## Work Group Update

### Subcommittee Discussion